

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/002503

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C12Q1/68 A01K67/027 A61K38/00 A61K39/00 A61K48/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)  
EPO-Internal, BIOSIS, WPI Data, EMBASE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/042654 A (EVANS DAVID ; ALTAR ANTHONY C (US); HOOK DEREK (US); KLIMCZAK LESZEK ( ) 22 May 2003 (2003-05-22) cited in the application abstract; claims 1-31	1-41, 43-50
A	HAKAK Y ET AL: "Genome-wide expression analysis reveals dysregulation of myelination-related genes in chronic schizophrenia" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 98, no. 8, 10 April 2001 (2001-04-10), pages 4746-4751, XP002957625 ISSN: 0027-8424 abstract; figure 1; table 1	1-41, 43-50

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

11 November 2004

Date of mailing of the international search report

12. 01. 2005

Name and mailing address of the ISA

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# INTERNATIONAL SEARCH REPORT

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PCT/GB2004/002503

C.(Continuation) DOCUMENT <del>IS</del> CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>VAWTER M P ET AL: "Application of cDNA microarrays to examine gene expression differences in schizophrenia" BRAIN RESEARCH BULLETIN, ELSEVIER SCIENCE LTD, OXFORD, GB, vol. 55, no. 5, 15 July 2001 (2001-07-15), pages 641-650, XP002271622 ISSN: 0361-9230 abstract; tables 3,4</p> <p>-----</p>	1-41, 43-50
A	<p>WO 03/025224 A (BABRAHAM INST ; BAHN SABINE (GB)) 27 March 2003 (2003-03-27) the whole document</p> <p>-----</p>	1-41, 43-50
A	<p>MIRNICS K ET AL: "Analysis of complex brain disorders with gene expression microarrays: schizophrenia as a disease of the synapse" TRENDS IN NEUROSCIENCE, ELSEVIER, AMSTERDAM, NL, vol. 24, no. 8, 1 August 2001 (2001-08-01), pages 479-486, XP004273769 ISSN: 0166-2236 the whole document</p> <p>-----</p>	1-41, 43-50
A	<p>HARRISON P J: "The neuropathology of schizophrenia. A critical review of the data and their interpretation" BRAIN, OXFORD UNIVERSITY PRESS, OXFORD, GB, vol. 122 ( Pt 4), April 1999 (1999-04), pages 593-624, XP002271625 ISSN: 0006-8950 the whole document</p> <p>-----</p>	1-41, 43-50
A	<p>WO 00/25787 A (LI JIA HE ; ZHANG JIE (US); GUILFORD PHARM INC (US)) 11 May 2000 (2000-05-11) the whole document</p> <p>-----</p>	1-41, 43-50
P,A	<p>EVANS S J ET AL: "DNA microarray analysis of functionally discrete human brain regions reveals divergent transcriptional profiles" NEUROBIOLOGY OF DISEASE, BLACKWELL SCIENTIFIC PUBLICATIONS, OXFORD, GB, vol. 14, no. 2, November 2003 (2003-11), pages 240-250, XP002271626 ISSN: 0969-9961 abstract; table 3</p> <p>-----</p>	1-41, 43-50

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/002503

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 03042654	A	22-05-2003	US	2003096264 A1	22-05-2003
			WO	2004005882 A2	15-01-2004
			WO	03042654 A2	22-05-2003
WO 03025224	A	27-03-2003	WO	03025224 A1	27-03-2003
WO 0025787	A	11-05-2000	US	2003078212 A1	24-04-2003
			AU	777503 B2	21-10-2004
			AU	1332500 A	22-05-2000
			BR	9914878 A	07-01-2003
			CA	2350052 A1	11-05-2000
			CN	1367693 T	04-09-2002
			CZ	20011389 A3	12-09-2001
			EP	1171130 A1	16-01-2002
			HU	0300886 A2	28-07-2003
			JP	2002540060 T	26-11-2002
			NO	20011950 A	25-06-2001
			PL	356063 A1	14-06-2004
			WO	0025787 A1	11-05-2000
			ZA	200103566 A	03-12-2002

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2004/002503

## Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 1-11, insofar as they comprise the administration of a medicament to an organism, and claims 34, 35 and 41-43 comprise methods of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-41 and 43-50 (partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International Application No. PCT/ GB2004/ 002503

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

### Invention 1 (claims 1-41 and 43-50 (partially))

Method for identifying a potential therapeutic agent for the prevention/treatment of schizophrenia by assessing the expression of a gene, screening assays for modulators of said gene, use of a protein encoded by said gene to identify potential therapeutic modulators, cell line expressing said gene, recombinant animal having said gene altered, method of diagnosing using said gene, method of treatment/prevention of schizophrenia using said gene product/modulator, microarray comprising probe for said gene and kit, wherein said gene is PARG (poly(ADP-ribose) glycohydrolase).

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### Invention 2 (claims 1-41 and 43-50 (partially))

Method for identifying a potential therapeutic agent for the prevention/treatment of schizophrenia by assessing the expression of a gene, screening assays for modulators of said gene, use of a protein encoded by said gene to identify potential therapeutic modulators, cell line expressing said gene, recombinant animal having said gene altered, method of diagnosing using said gene, method of treatment/prevention of schizophrenia using said gene product/modulator, microarray comprising probe for said gene and kit, wherein said gene is OLR1.

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### Invention 3 (claims 1-41 and 43-50 (partially))

Method for identifying a potential therapeutic agent for the prevention/treatment of schizophrenia by assessing the expression of a gene, screening assays for modulators of said gene, use of a protein encoded by said gene to identify potential therapeutic modulators, cell line expressing said gene, recombinant animal having said gene altered, method of diagnosing using said gene, method of treatment/prevention of schizophrenia using said gene product/modulator, microarray comprising probe for said gene and kit, wherein said gene is ARPC3.

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### Inventions 4-68 (claims 1-41 and 43-50 (partially))

## INTERNATIONAL SEARCH REPORT

International Application No. PCT/ GB2004/ 002503

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Method for identifying a potential therapeutic agent for the prevention/treatment of schizophrenia by assessing the expression of a gene, screening assays for modulators of said gene, use of a protein encoded by said gene to identify potential therapeutic modulators, cell line expressing said gene, recombinant animal having said gene altered, method of diagnosing using said gene, method of treatment/prevention of schizophrenia using said gene product/modulator, microarray comprising probe for said gene and kit, wherein said gene is, as listed in independent claim 1, DNCL1-GLRX2.

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Inventions 69-92 (claims 1-40 and 42-50 (partially))

Method for identifying a potential therapeutic agent for the prevention/treatment of schizophrenia by assessing the expression of a gene, screening assays for modulators of said gene, use of a protein encoded by said gene to identify potential therapeutic modulators, cell line expressing said gene, recombinant animal having said gene altered, method of diagnosing using said gene, method of treatment/prevention of schizophrenia using said gene product/modulator, microarray comprising probe for said gene and kit, wherein said gene is, as listed in independent claim 1, FBS1-HMGCL.

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Invention 93 (claims 1-40 and 42-50 (partially))

Method for identifying a potential therapeutic agent for the prevention/treatment of schizophrenia by assessing the expression of a gene, screening assays for modulators of said gene, use of a protein encoded by said gene to identify potential therapeutic modulators, cell line expressing said gene, recombinant animal having said gene altered, method of diagnosing using said gene, method of treatment/prevention of schizophrenia using said gene product/modulator, microarray comprising probe for said gene and kit, wherein said gene is EPHX1.

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